

SCP-3 (25): sc-136064

BACKGROUND

Synaptonemal complexes are meiosis-specific nuclear organelles that are involved in chromosome rearrangements, such as chromosome pairing and recombination during meiotic prophase. SCP-2 and SCP-3 are major components of the lateral elements of synaptonemal complexes. SCP-3 is a sister chromatid arm cohesin during mammalian meiosis I. It has a C-terminal coiled-coil domain that promotes homotypic interactions *in vitro*. SCP-3 is expressed in testicular meiotic prophase cells and primordial germ cells. SCP-2 and SCP-3 first appear in leptotene-stage spermatocytes and disappear in late meiotic cells.

REFERENCES

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- Offenberg, H., et al. 1998. SCP-2: a major protein component of the axial elements of synaptonemal complexes of the rat. *Nucleic Acids Res.* 26: 2572-2579.
- Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 602162. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Prieto, I., et al. 2001. Mammalian STAG3 is a cohesion specific to sister chromatid arms in meiosis I. *Nat. Cell Biol.* 3: 761-766.
- Pfeifer, C., et al. 2001. Centromere and telomere redistribution precedes homologue pairing and terminal synapsis initiation during prophase I of cattle spermatogenesis. *Cytogenet. Cell Genet.* 93: 304-314.
- Peltari, J., et al. 2001. A meiotic chromosomal core consisting of cohesin complex proteins recruits DNA recombination proteins and promotes synapsis in the absence of an axial element in mammalian meiotic cells. *Mol. Cell. Biol.* 21: 5667-5677.

CHROMOSOMAL LOCATION

Genetic locus: SYCP3 (human) mapping to 12q23.2; Sycp3 (mouse) mapping to 10 C1.

SOURCE

SCP-3 (25) is a mouse monoclonal antibody raised against amino acids 1-109 of SCP-3 of rat origin.

PRODUCT

Each vial contains 50 µg IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

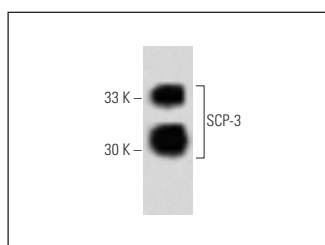
SCP-3 (25) is recommended for detection of SCP-3 of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for SCP-3 siRNA (h): sc-44882, SCP-3 siRNA (m): sc-37646, SCP-3 shRNA Plasmid (h): sc-44882-SH, SCP-3 shRNA Plasmid (m): sc-37646-SH, SCP-3 shRNA (h) Lentiviral Particles: sc-44882-V and SCP-3 shRNA (m) Lentiviral Particles: sc-37646-V.

Molecular Weight of SCP-3 isoforms: 30/33 kDa.

Positive Controls: rat testis extract: sc-2400, mouse testis extract: sc-2405 or mouse embryo extract: sc-364239.

DATA



SCP-3 (25): sc-136064. Western blot analysis of SCP-3 expression in rat testis tissue extract.

RESEARCH USE

For research use only, not for use in diagnostic procedures. Not for resale.



See **SCP-3 (D-1): sc-74569** for SCP-3 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.